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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/114,231	06/30/1998	ILAN GABRIEL CARON	84505	8985

7590 02/13/2004

LEYDIG VOIT & MAYER LTD
TWO PRUDENTIAL PLAZA SUITE 4900
180 NORTH STETSON
CHICAGO, IL 606016780

EXAMINER	
LAO, SUE X	

ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 02/13/2004 19

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/114,231	CARON, ILAN GABRIEL	
	Examiner	Art Unit	
	S. Lao	2126	

-- The MAILING DATE f this communication appears on the cover sheet with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *67-76* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *67-76* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 67-76 are pending. This action is in response to the after final amendment filed 9/29/2003 and RCE filed 12/4/2003. Applicant has amended claims 67 and 72.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 67-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyer et al (U S Pat. 5,754,849) in view of Microsoft (Microsoft Message Queue Server Reviewer's Guide) and Vanderbilt et al (U S Pat. 5,793,965).

As to claim 67, Dyer teaches in a message communication network (fig. 1) a method for sending a self-descriptive dictionary object (value object 104) from a sending application (102a) to a recipient application (102b), the method comprising the steps of:

the sending application passing (initiate a transfer) the dictionary object to a first message communication machine (first computer including communication object 113a) to deliver to a second message communication machine (second computer including communication object 113b);

the first message communication machine (first computer / communication object 113a) invoking a method (invoke a flatten method of the value object) of the dictionary object to serialize the dictionary object;

the first message communication machine sending the serialized dictionary object in a message object (construct and send byte stream 112 corresponding to hierarchical data elements of 104) to the second message communication machine;

the second message communication machine receiving the message object (collect transmitted data stream) and instantiating and loading the serialized dictionary object into an unserialized dictionary object (communication object 113b invokes unflatten method to restore into instance 104b);

the second message communication machine passing the unserialized dictionary object to the recipient application (application 102b operates on 104b). See col. 4, line 39 - col. 5, line 49.

Dyer does not teach (1) that the first/second message communication machines are the first/second message queuing machines, (2) steps of the recipient application identifying a data element in the unserialized dictionary object received from the second queuing machine having a data type not recognized by the recipient application; and the recipient application sending a query to the first message queuing machine to learn about said data type.

As to (1), Microsoft teaches a message communication network is implemented as a message queuing network (MSMQ, fig.s on pages 2, 10), including first/second message queuing machines (machine 1 with its queue manager, machine 2 with its queue manager). See pages 10-13. Therefore, it would have been obvious to implement the first/second message communication machines of Dyer as respective first/second message queuing machines. The motivations to combine the teachings of Dyer and Microsoft include the following. Dyer desires using communicating the value objects / streams via a store-and-forward mechanism (col. 41, lines 1-11), but does not provide details thereof. Microsoft teaches a store-and-forward mechanism for message communication (pages 2, 5). Therefore, one of ordinary skill in the art would have been motivated to use the mechanism of Microsoft to implement the store-and-forward mechanism in Dyer.

As to (2), Vanderbilt teaches message communication, wherein a recipient application identifies a data element having a data type not recognized by (does not know the type) and the recipient application sends a query to a remote machine to learn about the data type (invoke remote IS_A function). See col. 10, lines 2-55. Therefore, it would have been obvious to include into Dyer steps of the recipient application identifying a data element in the unserialized dictionary object having a data type not recognized by the recipient application; and the recipient application sending a query to the first message queuing machine to learn about said data type. The motivations to combine the teachings of Dyer and Vanderbilt include implementing interoperability

(Vanderbilt, col. 12, line 60 - col. 13, lines 3) between different platforms desirable in Dyer (Dyer, col. 40, lines 57-67).

Regarding that the data element is received from a remote machine / second queuing machine, this is met by the combined teaching of Dyer and Vanderbilt. Vanderbilt teaches the sender and the receiver computers, ie, the first and the second computers, can be the same computer (col. 17, lines 27-38; col. 18, lines 16-17, 63-64). In other words, the IS_A function in this situation is used to learn the type information about a local object. Dyer teaches such local objects includes those received from the remote machine / second queuing machine. Therefore, the combination of Dyer and Vanderbilt would have provided using the IS_A function to learn about the type information about a local object which is received from a remote machine / second queuing machine.

As to claim 68, Dyer as modified teaches the query sent by the recipient application is directed to the sending application (execute a remote IS_A function) (Vanderbilt, col. 10, line 45 - col. 11, line 4). Note discussion of claim 67 for a motivation to combine.

As to claim 69, Dyer teaches (col. 14, table 4) the dictionary object includes a lookup method (GetElem()) for finding a specified dictionary element in a dictionary contained in the dictionary object and a enumerate method (Extract()) for obtaining a next dictionary element from a given position in the dictionary. In addition, lookup/search and enumerate are typical (data) dictionary operations.

As to claim 70, Dyer as modified teaches (Vanderbilt) applying late binding (runtime invocation of object) by the recipient application to reference data elements in the unserialized dictionary object / received object (Vanderbilt, col. 6, lines 12-28; col. 2, lines 17-32).

As to claim 71, Dyer teaches determining size of the message object (Length() function, col. 14, table 4) and creating a buffer for persistent storage of the message object (store value objects in database/files, col. 41, lines 1-11). When the teachings of Dyer and Microsoft are combined, performing such functions by a message queuing server / communication manager would have been obvious.

As to claims 72-76, these are the program product claims of claims 67-71, thus note claims 67-71, respectively, for discussions.

4. Claims 67-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyer et al (U S Pat. 5,754,849) in view of Blakeley et al (Messaging and Queuing Using the MQI) and Vanderbilt et al (U S Pat. 5,793,965).

As to claims 67-76, note discussions above except the teaching of MSMQ. Similar teaching and advantages regarding message queuing machines and servers are found in Blakeley (Chapter 6, Messaging and Queuing Models).

5. Claims 67-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyer et al (U S Pat. 5,754,849) in view of Microsoft (Microsoft Message Queue Server Reviewer's Guide) and Brockschmidt (Inside OLE, 2nd Ed. Chapter 3).

As to claim 67, Dyer teaches in a message communication network (fig. 1) a method for sending a self-descriptive dictionary object (value object 104) from a sending application (102a) to a recipient application (102b), the method comprising the steps of:

the sending application passing (initiate a transfer) the dictionary object to a first message communication machine (first computer including communication object 113a) to deliver to a second message communication machine (second computer including communication object 113b);

the first message communication machine (first computer / communication object 113a) invoking a method (invoke a flatten method of the value object) of the dictionary object to serialize the dictionary object;

the first message communication machine sending the serialized dictionary object in a message object (construct and send byte stream 112 corresponding to hierarchical data elements of 104) to the second message communication machine;

the second message communication machine receiving the message object (collect transmitted data stream) and instantiating and loading the serialized dictionary object into an unserialized dictionary object (communication object 113b invokes unflatten method to restore into instance 104b);

the second message communication machine passing the unserialized dictionary object to the recipient application (application 102b operates on 104b). See col. 4, line 39 - col. 5, line 49.

Dyer does not teach (1) that the first/second message communication machines are the first/second message queuing machines, (2) steps of the recipient application identifying a data element in the unserialized dictionary object received from the second queuing machine having a data type not recognized by the recipient application; and the recipient application sending a query to the first message queuing machine to learn about said data type.

As to (1), Microsoft teaches a message communication network is implemented as a message queuing network (MSMQ, fig.s on pages 2, 10), including first/second message queuing machines (machine 1 with its queue manager, machine 2 with its queue manager). See pages 10-13. Therefore, it would have been obvious to implement the first/second message communication machines of Dyer as respective first/second message queuing machines. The motivations to combine the teachings of Dyer and Microsoft include the following. Dyer desires using communicating the value objects / streams via a store-and-forward mechanism (col. 41, lines 1-11), but does not provide details thereof. Microsoft teaches a store-and-forward mechanism for message communication (pages 2, 5). Therefore, one of ordinary skill in the art would have been motivated to use the mechanism of Microsoft to implement the store-and-forward mechanism in Dyer.

As to (2), Brockschmidt teaches message communication, wherein a recipient application receives (client received) a data element having a data type not recognized (unknown) and the recipient application sends a query to a remote machine to learn about the data type (query for IProvideClassInfo). See paragraph bridging pages 40 and 41. In Brockschmidt, the type information / type library is accessed in a distributed manner (standard OLE services, via proxy and stub) see page 41, 3rd para., paragraph bridging pages 41 and 42. Given the teaching of Brockschmidt, it would have been obvious to include into Dyer steps of the recipient application identifying a data element in the unserialized dictionary object having a data type not recognized by the recipient

application; and the recipient application sending a query to the first message queuing machine to learn about the data type. One of ordinary skill in the art would have been motivated to combine the teachings of Dyer and Brockschmidt because by organizing the type information of Dyer (col. 10, lines 30-57) into a type library as in Brockschmidt, the type information would have been better retrieved and viewed (Brockschmidt, type library APIs, browsers, pages 4, 27, 41-42).

Regarding that the data element is received from a remote machine / second queuing machine, this is met by the combination of Dyer and Brockschmidt in that Brockschmidt teaches receiving the data element and Dyer teaches receiving includes receiving from a remote machine / second queuing machine.

As to claim 68, Dyer as modified teaches the query sent by the recipient application is directed to the sending application (API for loading type library, pages 4, 27, 41-42). Note discussion of claim 67 for a motivation to combine.

As to claim 69, Dyer teaches (col. 14, table 4) the dictionary object includes a lookup method (GetElem()) for finding a specified dictionary element in a dictionary contained in the dictionary object and a enumerate method (Extract()) for obtaining a next dictionary element from a given position in the dictionary. In addition, lookup/search and enumerate are typical (data) dictionary operations.

As to claim 70, Dyer as modified teaches applying late binding (late-bound programming) by the recipient application to reference data elements in the unserialized dictionary object / received object (Brockschmidt, page 2, 4th para.).

As to claim 71, Dyer teaches determining size of the message object (Length() function, col. 14, table 4) and creating a buffer for persistent storage of the message object (store value objects in database/files, col. 41, lines 1-11). When the teachings of Dyer and Microsoft are combined, performing such functions by a message queuing server / communication manager would have been obvious.

As to claims 72-76, these are the program product claims of claims 67-71, thus note claims 67-71, respectively, for discussions.

6. Claims 67-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyer et al (U S Pat. 5,754,849) in view of Blakeley et al (Messaging and Queuing Using the MQI) and Brockschmidt.

As to claims 67-76, note discussions above except the teaching of MSMQ. Similar teaching and advantages regarding message queuing machines and servers are found in Blakeley (Chapter 6, Messaging and Queuing Models).

7. Applicant's arguments filed 9/29/2003 have been considered but are moot in view of the new ground(s) of rejection.

Regarding the argued limitation that the data element of unknown type is received from a remote machine / second queuing machine, this is met by the combined teaching of Dyer and Vanderbilt. Vanderbilt teaches the sender and the receiver computers, ie, the first and the second computers, can be the same computer (col. 17, lines 27-38; col. 18, lines 16-17, 63-64). In other words, the IS_A function here is also used to learn the type information about a local object. Dyer teaches such local objects include those received from the remote machine / second queuing machine. Therefore, the combination of Dyer and Vanderbilt would provide using the IS_A function to learn about the type information about a local object which is received from a remote machine / second queuing machine.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (703) 305-9657. A voice mail service is also available at this number. The examiner's supervisor, SPE Meng-Ai An, can be reached on (703) 305 9678. The examiner can normally be reached on Monday - Friday, from 9AM to 5PM. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

Sue Lao
February 3, 2004